THEREFORE, WE CLAIM:

1. A ferrite material, comprising:

as main components, an iron oxide ranging from 55.5 to 58.0 mole percent calculated as Fe_2O_3, an amount of manganese oxide ranging from 38.0 to 41.0 mole percent calculated as MnO, and an amount of zinc oxide ranging from 3.3 to 4.7 mole percent calculated as ZnO; and

as minor components, an amount of calcium oxide ranging from 0.030 to 0.100 weight percent calculated as CaO, an amount of silicon oxide ranging from 0.015 to 0.040 weight percent calculated as SiO_2, and an amount of niobium oxide ranging from 0.010 to 0.030 weight percent calculated as Nb_2O_5.

2. The ferrite material according to claim 1, wherein the amount of iron oxide ranges from 57.0 to 57.3 mole percent.

3. The ferrite material according to claim 1, wherein the amount of manganese oxide ranges from 37.0 to 39.0 mole percent.

4. The ferrite material according to claim 1, wherein the amount of zinc oxide ranges from 4.0 to 4.7 mole percent.

5. The ferrite material according to claim 1, wherein the amount of calcium oxide ranges from 0.030 to 0.050 weight percent.

6. The ferrite material according to claim 1, wherein the amount of silicon oxide ranges from 0.015 to 0.035 weight percent.

7. The ferrite material according to claim 1, wherein the amount of niobium oxide ranges from 0.020 to 0.030 weight percent.

8. The ferrite material according to claim 1, wherein the major components and minor components are pulverized to a particle size ranging from 0.9 μ to 1.9 μ.

9. A sintered material comprised of the ferrite material according to claim 1, and having a Curie temperature greater than 250°C.

10. The sintered material of claim 9, wherein the ferrite material has a Curie temperature of 270°C or greater.

11. The sintered material of claim 10, wherein the ferrite material has a Curie temperature of 280°C or greater.

12. A sintered material comprised of a ferrite material having a power loss of below 170 mW/cm^3 at a frequency of 0.5 MHz and a magnetic flux density of 500 G at a temperature range between 80°C and 140°C.

13. The sintered material of claim 12, wherein the power loss ranges from 85 mW/cm^3 and 130 mW/cm^3.

14. The sintered material of claim 13, wherein the power loss is below 100 mW/cm^3.

15. A sintered material comprised of a ferrite material having a power loss of below 465 mW/cm^3 at a frequency of 1.0 MHz and a magnetic flux density of 500 G at a temperature range between 80°C and 140°C.

16. The sintered material of claim 15, wherein the power loss ranges from 315 mW/cm^3 to 400 mW/cm^3.

17. A sintered material comprised of a ferrite material and having a power loss of below 300 mW/cm^3 at a frequency of 3.0 MHz and a magnetic flux density of 100 G at a temperature range between 80°C and 140°C.

18. The sintered material of claim 17, wherein the power loss ranges from 90 mW/cm^3 to 180 mW/cm^3.

19. A core for a transformer comprised of the ferrite material of claim 1.

20. A power supply comprising a converter having a core for a transformer comprised of the ferrite material of claim 1.

21. A sintered material comprised of a ferrite material having a power loss of below 100 mW/cm^3 at a frequency of 0.5 MHz and a magnetic flux density of 500 G at a temperature range between 80°C and 140°C.

22. A sintered manganese-zinc ferrite material having a Curie temperature above 250°C.

23. The sintered material of claim 22, wherein the ferrite material has a Curie temperature above 270°C.

24. The sintered material of claim 23, wherein the ferrite material has 7a Curie temperature above 280°C.

25. A sintered material having a power loss at or below 100 mW/cm^3 at a temperature between 80°C and 140°C and a frequency of 250 kHz.

26. A ferrite material, consisting essentially of:

as main components, an amount of iron oxide ranging from 55.5 to 58 mole percent calculated as Fe_2O_3, an amount of manganese oxide ranging from 38.1 to 40.5 mole percent calculated as MnO, and an amount of zinc oxide ranging from 3.3 to 4.7 mole percent calculated as ZnO; and

as minor components, an amount of calcium oxide ranging from 0.035 to 0.100 mole percent calculated as CaO, an amount of silicon oxide ranging from 0.020 to 0.040 mole percent calculated as SiO_2, and an amount of niobium oxide ranging from 0.010 to 0.030 mole percent calculated as Nb_2O_5.

27. A method of forming a ferrite material, comprising:

mixing as main components, an iron component ranging from 55.5 to 58.0 mole percent calculated as Fe_2O_3, an amount of manganese component ranging from 38.0 to 41.0 mole percent calculated as MnO, and an amount of zinc component ranging from 3.3 to 4.7 mole percent calculated as ZnO; and

mixing with the main components minor components, an amount of calcium component ranging from 0.030 to 0.100 weight percent calculated as CaO, an amount of silicon component ranging from 0.015 to 0.040 weight percent calculated as SiO_2, and an amount of niobium component ranging from 0.010 to 0.030 weight percent calculated as Nb_2O_5.

28. A method of forming a core material, comprising:

mixing as main components, an iron component ranging from 55.5 to 58.0 mole percent calculated as Fe_2O_3, an amount of manganese component ranging from 38.0 to 41.0 mole percent calculated as MnO, and an amount of zinc component ranging from 3.3 to 4.7 mole percent calculated as ZnO;

mixing with the main components minor components comprising an amount of calcium component ranging from 0.030 to 0.100 weight percent calculated as CaO, an amount of silicon component ranging from 0.015 to 0.040 weight percent calculated as SiO_2, and an amount of niobium component ranging from 0.010 to 0.030 weight percent calculated as Nb_2O_5, the main components and the minor components forming a ferrite material;

pressing the ferrite material to a predetermined density; and

sintering the ferrite material to form the core material.